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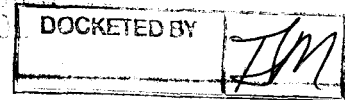


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BEFORE THE ARIZONA CORPORATION COMMISSION

COMMISSIONERS

BOB STUMP, Chairman
GARY PIERCE
BRENDA BURNS
ROBERT L. BURNS
SUSAN BITTER SMITH

IN THE MATTER OF ARIZONA PUBLIC
SERVICE COMPANY – APPROVAL OF
UPDATED GREEN POWER RATE
SCHEDULE GPS-1, GPS-2 AND GPS-3

DOCKET NO. E-01345A-10-0394

IN THE MATTER OF THE APPLICATION
OF ARIZONA PUBLIC SERVICE
COMPANY FOR APPROVAL OF ITS 2013
RENEWABLE ENERGY STANDARD
IMPLEMENTATION FOR RESET OF
RENEWABLE ENERGY ADJUSTOR

DOCKET NO. E-01345A-12-0290

IN THE MATTER OF THE APPLICATION
OF TUCSON ELECTRIC POWER
COMPANY FOR APPROVAL OF ITS 2013
RENEWABLE ENERGY STANDARD
IMPLEMENTATION PLAN AND
DISTRIBUTED ENERGY
ADMINISTRATIVE PLAN AND
REQUEST FOR RESET OF ITS
RENEWABLE ENERGY ADJUSTOR

DOCKET NO. E-01933A-12-0296

IN THE MATTER OF THE APPLICATION
OF UNS ELECTRIC, INC. FOR
APPROVAL OF ITS 2013 RENEWABLE
ENERGY STANDARD
IMPLEMENTATION PLAN AND
DISTRIBUTED ENERGY
ADMINISTRATIVE PLAN AND
REQUEST FOR RESET OF ITS
RENEWABLE ENERGY ADJUSTOR

DOCKET NO. E-04204A-12-0297

NOTICE OF FILING TESTIMONY

1 Arizona Public Service Company files the attached testimony of Gregory L.
2 Bernosky in the above-captioned dockets.

3 RESPECTFULLY SUBMITTED this 29th day of March, 2013.

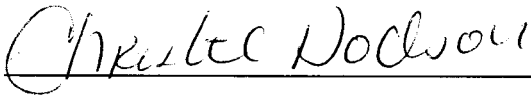
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5 By: 

6 Thomas A. Loquvam

7 Attorney for Arizona Public Service Company

8 ORIGINAL and thirteen (13) copies
9 of the foregoing filed this 29th day of
March, 2013, with:

10 Parties of Record:

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TESTIMONY OF GREGORY L. BERNOSKY

On Behalf of Arizona Public Service Company

**Docket Nos. E-01345A-10-0394; E-01345A-12-0290;
E-01933A-12-0296; E-04204A-12-0297**

March 29, 2013

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1 **TESTIMONY OF GREGORY L. BERNOSKY**
2 **ON BEHALF OF ARIZONA PUBLIC SERVICE COMPANY**
3 **(Docket Nos. E-01345A-10-0394; E-01345A-12-0290;**
4 **E-01933A-12-0296; E-04204A-12-0297)**

5 **I. INTRODUCTION**

6 **Q. PLEASE STATE YOUR NAME, ADDRESS AND OCCUPATION.**

7 A. My name is Greg Bernosky. I am Arizona Public Service Company's (APS or
8 Company) Manager of Renewable Energy and my address is 400 North 5th
9 Street, Phoenix, Arizona, 85004.

10 **Q. WHAT IS YOUR EDUCATIONAL AND PROFESSIONAL**
11 **BACKGROUND?**

12 A. I graduated from the University of Illinois in 1998. I began employment with
13 APS in 2007 and primarily focused my efforts on transmission line and facility
14 siting. I began working in the renewable energy area in 2010, and I became the
15 Manager of Renewable Energy in 2012.

16 **Q. WHAT ARE YOUR RESPONSIBILITIES AT APS?**

17 A. I am responsible for developing, seeking regulatory approval for and
18 administering APS's renewable energy program.

19 **Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?**

20 A. My testimony answers the question of whether APS should be allowed, in the
21 absence of paying direct cash incentives, to use a "Track and Record" means of
22 securing compliance with its distributed energy (DE) requirements under the
23 Renewable Energy Standard (RES) rules.

24 **II. SUMMARY**

25 **Q. PLEASE SUMMARIZE YOUR TESTIMONY.**

26 A. Coming out of its 2012 REST plan, APS was ordered to address how it would
27 comply with the RES rules if direct cash incentives were no longer available and
28

1 it no longer received Renewable Energy Credits (RECs) from customers. APS's
2 proposal was to simply track all energy produced by DE systems installed on
3 APS's system and count that energy for purposes of compliance. Several
4 intervenors, however, objected to this proposal because rules such as those
5 established by the Center for Resource Solutions consider RECs to be retired if
6 the energy associated with those RECs is used to establish compliance with the
7 RES. To satisfy this concern, the Track and Record proposal described in this
8 testimony addresses DE compliance obligations while permitting customers to
9 retain RECs.

10
11 APS is now in the position where DE incentives are no longer necessary for APS
12 to achieve compliance with the RES rules over the next several years. Because of
13 this, APS expects that the payment of direct cash incentives for installing DE will
14 be eliminated in the near future. Historically, APS has provided direct cash
15 incentives, among others, to customers installing a DE resource in exchange for
16 the RECs that the resource would create. When direct cash incentives come to an
17 end, APS proposes that the Commission implement a Track and Record policy
18 that would no longer require APS (and other Affected Utilities, as appropriate) to
19 obtain RECs from DE sources as contemplated in A.A.C. R14-2-1805. Customers
20 installing DE would keep their RECs. Because DE activity is still of interest to
21 the Commission and Affected Utilities, however, APS proposes to track the
22 energy produced by DE installations through the continued deployment of DE
23 production meters and annually report the amount of that energy to the
24 Commission for informational purposes, rather than for compliance purposes.
25 There would no longer be a requirement that Affected Utilities acquire a
26 particular amount of RECs from DE. This proposal should be implemented, and
27
28

1 Affected Utilities should be permitted to Track and Record DE in this manner, for
2 two primary reasons.

3
4 First, APS's proposal is a simple compromise between the need for APS to
5 address compliance with DE requirements and the desire of some customers to
6 retain RECs. Second, APS's proposal would create an opportunity to save costs
7 for customers. With the current DE "carve-out," APS may need to acquire new
8 DE RECs in 2016 to satisfy the residential DE requirement. The elimination of
9 cash incentives would potentially require APS to obtain these RECs through a
10 different transaction with customers.

11
12 With no DE RECs coming to the utility, APS believes it is appropriate to
13 eliminate the DE "carve-out" and transition from acquiring DE to meet arbitrary
14 benchmarks in the RES rules to a focus on acquiring renewable energy in the
15 context of a broader resource plan. Quite simply, if the Commission removes the
16 requirement for APS to acquire additional technology-specific (e.g., DE) RECs,
17 APS can continue its commitment to renewable energy by addressing resource
18 planning needs in a manner that leverages decreasing market prices and obtains
19 the lowest cost for all APS customers.

20 21 **III. BACKGROUND REGARDING INCENTIVES AND RECs**

22 **Q. PLEASE DESCRIBE THE RENEWABLE ENERGY AND DE**
23 **REQUIREMENTS WITH WHICH APS MUST COMPLY.**

24 **A.** In November 2006, the Commission adopted new Renewable Energy Standard
25 and Tariff rules.¹ These RES rules require Affected Utilities² (of which APS is

26 ¹ See Decision No. 69127.

27 ² Affected Utilities are public service corporations serving retail electric load in Arizona, except for
28 those Utility Distribution Companies with more than half of their customers located outside of Arizona.
A.A.C. R14-2-1801(A).

1 one) to, among other items, use renewable energy to serve increasing portions of
2 their retail load. By the end of 2013, the RES rules require APS to serve 4% of its
3 retail load with renewable energy; by 2015 that percentage increases to 5%; by
4 2025 and for all subsequent years, 15% of APS's retail load must be served by
5 renewable energy.³

6
7 In addition, the RES rules impose a DE carve-out requirement. The DE carve-out
8 requires that for all years after 2011, 30% of Affected Utilities' renewable energy
9 requirements must be supplied by DE.⁴ In other words, by 2025, 4.5% of APS's
10 retail load (30% of 15%) must be served from DE. Half of APS's DE requirement
11 must come from residential applications and the other half from non-residential,
12 non-utility applications.⁵

13
14 **Q. WHAT ARE RECs?**

15 **A.** Before the RES rules, RECs did not exist in Arizona. Arizona RECs exist solely
16 through the RES rules, and were created as a means for Affected Utilities to
17 demonstrate compliance with the RES rules. The RES rules provide that for each
18 kWh, a single REC is created, and that the owner of the renewable generating
19 resource creating that kWh also owns the resulting REC.⁶ The RES rules provide
20 that an Affected Utility may transfer RECs to, or acquire RECs from, another
21 party; the RES rules do not, however, identify any other permissible transfers of
22 ownership.⁷ RECs are "bundled" with energy; any transfer of RECs must also
23 transfer the energy associated with those RECs.⁸

24
25 ³ See A.A.C. R14-2-1804.

26 ⁴ A.A.C. R14-2-1805(B).

27 ⁵ A.A.C. R14-2-1805(C).

28 ⁶ A.A.C. R14-2-1803. The rules also provide that non-photovoltaic DE resources can create one REC for each 3.415 British Thermal Units produced. See A.A.C. R14-2-1803(B).

⁷ A.A.C. R14-2-1803(C).

⁸ A.A.C. R14-2-1803.

1 **Q. WHAT PURPOSE DO RECs SERVE?**

2 RECs exist solely as a mechanism for Affected Utilities to establish compliance
3 with the RES standard. To establish compliance, an Affected Utility must (i)
4 acquire the REC in question from the owner of the Eligible Renewable Energy
5 Resource; and (ii) "retire" that REC.⁹

6
7 **Q. FOCUSING ON RECs ASSOCIATED WITH DE, HOW DOES APS**
8 **ACQUIRE RECs FROM OWNERS OF ELIGIBLE RENEWABLE**
9 **ENERGY RESOURCES?**

10 A. To acquire RECs associated with DE, APS enters into an agreement with the
11 customer owning the DE system in question. Pursuant to that agreement, APS
12 pays the customer a direct cash incentive. In exchange, the customer transfers to
13 APS all RECs associated with the energy created by the DE system for a 15 or 20
14 year term, depending on the type of contract signed. The Commission sets the
15 incentive amount provided by APS. That amount has decreased over time as a
16 result of various factors, including market activity and APS's compliance needs.

17 **Q. PLEASE DESCRIBE THE HISTORY OF APS'S DIRECT CASH**
18 **INCENTIVES AND THE STATUS OF APS'S COMPLIANCE WITH ITS**
19 **DE REQUIREMENTS.**

20 A. Upfront cash incentives for residential DE have decreased from a high of \$4/watt
21 in 2006 to \$0.10/watt today. As the direct cash incentive amount has decreased,
22 the number of DE installations has increased. In 2012 alone, customers installed
23 105 MWdc of DE in APS's service territory, resulting in more than 273 MWdc
24 total. Accounting for only existing DE installations and commitments, APS will
25 meet residential DE carve-out requirements through 2015 and non-residential DE
26 carve-out requirements through 2019.

27 **IV. APS's TRACK AND RECORD SOLUTION**

28 ⁹ A.A.C. R14-2-1804.

1 **Q. WHY IS APS PROPOSING TRACK AND RECORD?**

2 A. APS cannot comply with the RES rules as currently written if APS is not
3 providing a cash incentive to customers installing a DE system in exchange for
4 RECs tied to that DE system. Thus, APS proposes Track and Record as a simple
5 and cost-effective means to address APS's compliance obligations under the RES
6 rules.

7 **Q. PLEASE DESCRIBE APS'S PROPOSAL FOR ADDRESSING DE**
8 **COMPLIANCE REQUIREMENTS WITHOUT INCENTIVES.**

9 A. To address DE compliance and permit customers to keep RECs, APS proposes
10 that Affected Utilities no longer have a firm DE requirement. This would involve
11 ending the requirement in A.A.C. R14-2-1805 that APS satisfy 30% of its total
12 RES requirement through DE. Instead of acquiring (and subsequently retiring)
13 RECs from newly installed DE systems, APS would simply track the amount of
14 incremental energy produced by those systems in its service territory and report
15 that information to the Commission. This reporting would be for information
16 purposes only—not compliance purposes. Under its proposal, APS would be able
17 to retire any DE RECs currently in its possession to satisfy APS's RES
18 obligations found in A.A.C. R14-2-1804. APS could also acquire new DE RECs
19 to satisfy those obligations, but would have no further obligation to obtain and
20 retire new DE RECs as specified in A.A.C. R14-2-1805.

21 **Q. WOULD APS'S PROPOSAL INVOLVE A CHANGE TO OR WAIVER OF**
22 **THE RES RULES?**

23 A. APS's proposal involves initially waiving compliance with the DE carve-out.
24 When direct cash incentives are eliminated, a solution regarding DE compliance
25 and RECs will be needed in the short term, and a waiver can be implemented
26 before a formal change to the RES rules. But in the long term, transitioning the
27 implementation of Track and Record from a waiver to a narrow rule change
28 offers certain advantages. A waiver can subsequently be revoked. If the DE

1 waiver were revoked, APS could be required to obtain sufficient DE RECs to
2 meet the 30% requirement in a condensed timeframe, causing uncertain costs and
3 impacts. Moreover, if APS only secured a waiver of the DE carve-out, APS
4 would never be adequately certain of its DE requirements in connection with,
5 among other items, resource planning and APS's long term RES program
6 commitments. Accordingly, APS proposes implementing Track and Record
7 through a waiver in the short term. In the long term, APS proposes a narrow rule
8 change, and will include specific rule changes in its rebuttal testimony.

9
10 **Q. UNDER APS's PROPOSAL, WOULD CUSTOMERS INSTALLING NEW
DE SYSTEMS BE ABLE TO KEEP THEIR RECs?**

11 A. Yes. If APS had no separate requirement to retire a certain amount of RECs from
12 DE sources, APS would not need to acquire DE RECs from its customers. APS
13 would only track incremental DE energy produced and report that production
14 each year for informational purposes only.

15 **Q. WOULD APS PAY DIRECT CASH INCENTIVES TO CUSTOMERS
16 INSTALLING AND OPERATING NEW DE SYSTEMS?**

17 A. No. APS would no longer need the DE RECs that customers provide in exchange
18 for direct cash incentives to comply with the RES.

19 **Q. WOULD APS NEED RECs TO ESTABLISH COMPLIANCE WITH DE
20 REQUIREMENTS?**

21 A. No. Under APS's proposal, APS would have no separate requirement to retire
22 RECs derived from DE.

23 **Q. WOULD APS STILL NEED TO MEET THE OVERALL 15% STANDARD
24 STATED IN THE RES RULES?**

25 A. Yes. APS's obligation to serve 15% of its retail load with energy produced by
26 Eligible Renewable Energy Resources stems from A.A.C. R14-2-1804. APS's
27 proposal only addresses the separate requirements found in and derived from
28 A.A.C. R14-2-1805.

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Q. HOW WOULD CUSTOMERS BENEFIT?

A. Customers would benefit from APS's proposal because the proposal would (i) permit customers to keep RECs produced by their DE systems; and (ii) create the opportunity for lower overall costs to customers.

Q. IF INCENTIVES ARE PAID TO CUSTOMERS INSTALLING DE, WOULD RECs BE ACQUIRED FROM THOSE CUSTOMERS?

A. Yes. Under APS's proposal, the DE carve-out would no longer exist. Nonetheless, if the Commission concludes that as a policy matter, some form of DE incentives exist—whether as a direct cash payment or otherwise—APS would seek to acquire RECs in exchange for any incentive paid in fairness to all APS customers who fund the incentive.

Q. IS THIS TRACK AND RECORD PROPOSAL DIFFERENT FROM THE ONE PROPOSED IN APS's 2013 RES PLAN FILED ON JULY 1, 2012?

A. Yes. In its 2013 RES Plan, APS was ordered to address how it would comply with the RES rules if it no longer received RECs from customers. APS's proposal was to simply track all energy produced by DE systems installed on APS's system and count that energy for purposes of compliance. Several intervenors, however, objected to this proposal because rules such as those established by the Center for Resource Solutions consider RECs to be retired if the energy associated with those RECs is used to establish compliance with the RES. To satisfy this concern, the Track and Record proposal described in this testimony addresses DE compliance obligations while permitting customers to retain RECs.

Q. IS APS SEEKING TO "SLOW" THE DE MARKET WITH ITS PROPOSAL?

1 A. Absolutely not. APS was ordered to address DE compliance should customers no
2 longer provide RECs in exchange for direct cash incentives. APS's proposal is
3 not designed to reduce DE growth, or otherwise prevent customers from
4 installing DE. In fact, a fundamental premise of APS's proposal is to focus on
5 acquiring renewable energy to satisfy resource needs in the context of an overall
6 resource plan, rather than installing DE to satisfy arbitrary benchmarks that exist
7 independent of any resource need.

8
9 **Q. WHAT ALTERNATIVES DID APS CONSIDER?**

10 A. APS considered multiple possible solutions to address DE compliance in the
11 absence of direct cash incentives. One solution involved keeping APS's DE
12 requirements and simply requiring that customers surrender their RECs in
13 exchange for interconnecting to APS's system. Although this solution maximizes
14 the amount of DE RECs APS could possibly receive, a potential drawback is that
15 it would maintain the arbitrary DE benchmarks and not shift the focus to
16 acquiring renewable energy in the context of a broader resource plan. In addition,
17 this solution would preclude customers from retaining their RECs should they
18 desire. APS's proposal, on the other hand, would permit customers to keep their
19 RECs.

20
21 Another solution that APS considered involved eliminating the DE requirement
22 from the RES rule in a manner that would have reduced the overall RES
23 obligation by the amount of the DE carve-out. Under this alternative, APS's
24 overall RES obligation would be reduced by 30% after 2011; by 2025, APS
25 would only need to serve 10.5% of its retail load from Eligible Renewable
26 Resources, which would have cost implications for customers. Under this
27 alternative, APS would shift its decisions regarding the procurement of additional
28 renewable energy and capacity into the context of its overall resource needs; APS

1 would only acquire additional renewable energy as needed for planning and
2 reliability purposes, rather than to satisfy a separate RES obligation. Although
3 this option would result in lower costs for customers, APS's proposal maintains
4 as much of the current RES rules as possible while removing technology-specific
5 targets; this will allow APS to capture a significant amount of cost savings by
6 permitting APS to acquire renewable energy in the overall resource planning
7 context.

8
9 **V. CONCLUSION**

10 **Q. DO YOU HAVE ANY CONCLUDING REMARKS?**

11 **A.** Under the Commission's stewardship, APS and its customers have developed a
12 significant amount of renewable energy. Declining market prices and blends of
13 technology and ownership models have made renewable energy an integral part
14 of APS's overall resource planning. The issue that the Commission, APS and
15 Arizona must address is how to best move forward from here. APS submits that
16 the best approach to the answer of how DE REC's should be acquired when direct
17 cash incentives are eliminated is to simply not require DE REC's to be part of the
18 APS or any Affected Utilities' portfolio. In this way, the Commission can
19 recognize the importance of renewable energy, but balance the acquisition of new
20 renewable energy with the associated costs and resource planning needs. The
21 proposal described in this testimony seeks to achieve that balance. Affected
22 Utilities should be permitted to use the Track and Record mechanism described in
23 this testimony to simply and cost-effectively begin the discussion on transitioning
24 the acquisition of renewable energy under the RES to acquiring renewable energy
25 in relation to APS's resources needs within the context of an overall resource
26 plan.